# Montana Department of Environmental Quality Drinking Water State Revolving Fund (SRF) Intended Use Plan FFY 1998 and FFY 1999 Capitalization Grants

#### INTRODUCTION

The 1995 Montana Legislature set in motion the creation of a drinking water revolving fund in its passage of HB493. In 1997, the Legislature amended the program with HB483 to make Montana law consistent with the reauthorization of the Safe Drinking Water Act passed in 1996. This legislation, now codified as MCA 75-6-201, et seq, authorizes the Department of Environmental Quality (DEQ) and the Department of Natural Resources and Conservation (DNRC) to develop and implement the program, and it established the Drinking Water SRF Advisory Committee.

The Advisory Committee consists of one state representative, one state senator, one town mayor representing the Montana League of Cities and Towns, one county commissioner representing the Montana Association of Counties, one representative from DNRC and one representative from DEQ. The Committee advises DEQ and DNRC on policy decisions that arise in developing and implementing the Drinking Water SRF, and it reviews the program's Intended Use Plan (IUP).

The Drinking Water SRF Program received EPA approval and was awarded its first (FY 1997) capitalization grant on June 30, 1998. The program offers below-market loans for construction of public health-related infrastructure improvements as well as provides funding for other activities related to public health and compliance with the Safe Drinking Water Act (SDWA). These other activities, or set-asides, include administration of the Drinking Water SRF program, technical assistance to small communities, source water assessment and delineation, operator certification, administration of the Public Water Supply Program (PWSP), and capacity development.

The Drinking Water SRF is administered by DEQ and DNRC and is similar to the existing Water Pollution Control SRF. The majority of the funds comes to Montana in the form of capitalization grants through the U.S. Environmental Protection Agency. Montana provides the required twenty percent matching funds by issuing state general obligation bonds. Interest on the project loans is used to pay the general obligation bonds, thus using no state general funds to operate the program. The repaid principal on the project loans is used to rebuild the Drinking Water SRF fund and is used to fund additional projects in the future. The federal capitalization grants are only authorized through federal fiscal year 2003; however, federal and state law requires the Drinking Water SRF to be operated in perpetuity.

The 1996 Amendments to SDWA include requirements for each state to prepare an Intended use Plan (IUP) for each capitalization grant application. This is the central component of the capitalization grant application, and describes how the state will use the Drinking Water SRF to meet SDWA objectives and further the protection of public health. The IUP contains the following elements:

- 1. Priority list of projects, including description and size of community.
- 2. Criteria and method used for distribution of funds.
- 3. Description of the financial status of the Drinking Water SRF Program.
- 4. Short- and long-term goals of the Program.
- 5. Amounts transferred between the Drinking Water SRF and the Wastewater SRF.
- 6. Description of the set-aside activities and percentage of funds, that will be used from the Drinking Water SRF capitalization grant, including Drinking Water SRF administrative expenses allowance, PWSP support, technical assistance, etc.
- 7. Description of how the program will define a disadvantaged system and the amount of Drinking Water SRF funds that will be used for this type of loan assistance.

As required, DEQ has prepared this draft IUP and is providing it to the public for review and comment prior to submitting it to EPA as part of its capitalization grant application. Additionally, pursuant to state law, after public comment and review, DEQ will submit the IUP and a summary of public comment to the Advisory Committee for review, comment and recommendations.

# **Priority List of Projects**

To update its comprehensive project list, DEQ sent surveys to all community and non-profit noncommunity water systems in Montana. Of the approximately 870 surveys sent out, about 40 were returned. DEQ staff also conferred with many of these systems in an attempt to build as current of a comprehensive list as possible.

Systems that are in significant non-compliance with regulatory requirements must adopt a plan for returning to compliance as part of their Drinking Water SRF funding proposal (if the proposal does not intrinsically address this concern). Projects that primarily expand system capacity or enhance fire protection capabilities may not be eligible for funding unless public health or compliance issues also are addressed by the project.

Appendix 1 contains a comprehensive list of public water systems in Montana that have expressed interest in the Drinking Water SRF, that are planning capital improvement projects, or that have been identified as serious public health risks by DEQ. It is not anticipated that all of the projects in Appendix 1 will use SRF funds. Some systems do not have major projects planned, the remainder expect to be proceeding with projects within the next several years. Cost information is not always available, as some systems had not yet completed the financing plans for their projects at the time the project list was developed.

#### Limitations on individual project financing

At this point, the anticipated demand for the Drinking Water SRF funds exceeds the supply of these funds. DEQ, DNRC and the Drinking Water SRF Advisory Committee have previously discussed at length whether to attempt to limit the total amount of loans available to any one project, and if so, how. The Committee determined that should the actual demand for funds during the period of time covered by an intended use plan exceed the funds available for that same period, then the maximum amount of loan funds available to any one project could not exceed either \$4 million or 50% of the total capitalization grant amount for that period. Actual demand will not be known until applications are received from those projects ready to proceed within the timeframe of a particular capitalization grant. At that point, DEQ and DNRC, in consultation with the Advisory Committee, will determine whether the limit on individual projects would be applied in that round. To date, no limitations have been placed on the amount of the loan applications.

# **Anticipated Funding List**

DEQ is now eligible to apply for both the Fiscal Year 1998 and 1999 federal capitalization grants. The following list contains those projects that the Drinking Water SRF program anticipates will be funded with these next two capitalization grants in conjunction with the 20% state match. Every effort was made to contact those communities who indicated construction was likely during the 1999 construction season. This list represents those projects most likely to proceed, starting from the highest ranked projects on the comprehensive priority list (see discussion of ranking criteria in Appendix 2). It is possible that, if other projects are ready to proceed before those on this list, the actual projects that are ultimately funded may vary from those indicated on this list. This did occur during 1998.

1. Seeley Lake	Population: 1,016. Anticipated SRF loan: \$1,440,000. Construction of a surface water treatment facility to comply with the surface water treatment rule. Construction was initiated in June, 1997. It is expected that this project will qualify as a disadvantaged community.
2. Opheim	Population: 145. Total project cost: estimated \$700,000 to \$1,000,000. Replacement of well contaminated with dinoseb (herbicide), and storage and distribution system upgrades. Loan terms are undetermined at this time.
3. Thompson Falls	Population: 1,723. Project cost: \$690,000 Develop groundwater sources to replace unfiltered surface water supply. SRF to provide interim financing. Terms are 3% for 3 years.
4. Whitefish	Population: 5,835. Total project cost: \$6,239,000; amount funded this cycle: \$3,923,000  Construction of a surface water treatment facility. Expected loan terms are 4% for 20 years.
5. Havre	Population: 10,200. Total project cost: \$6,420,000; amount funded this cycle: \$2,820,000. Upgrade of existing surface water treatment facility. Expected loan terms are 4% for 20 years.
6. Philipsburg	Population: 940. SRF project cost: \$238,200. Development of groundwater sources. Expected terms are 4% for 20 years.
7. Glendive	Population: 4,802. Project cost: \$864,000 Construction of new intake structure and expansion of existing clear well. Loan terms are undetermined at this time.

8.	Sunset West - Missoula Co	Population: 110. Project cost: \$445,000; SRF portion: \$291,000. Improvements at well site, with transmission main and some distribution system. Loan terms are 4% for 20 years.
9.	Clyde Park	Population: 337. Total project cost: estimated \$500,000 to \$1,000,000. Overall water system improvements which include development of additional groundwater sources to replace or supplement existing spring, and possible storage and distribution system upgrades. Loan terms are undetermined at this time.
10.	Cut Bank	Population: 3,508. Project cost: \$3,234,000; SRF portion: \$2,587,000. New raw water intake structures, raw and finished water storage reservoirs. Loan terms are undetermined at this time.
11.	Helena	Population: 30,000. Project cost: \$6,200,000.  Development of groundwater wells, new clearwell at the Missouri WTP, new Winne Ave. reservoir. Loan terms are undetermined at this time.

#### Criteria and Method Used for Distribution of Funds

The Safe Drinking Water Act amendments of 1986 and 1996 imposed many new regulatory requirements upon public water suppliers. Public health and compliance problems related to these requirements, affordability, consolidation of two or more systems, and readiness to proceed all were considered in developing Montana's project ranking criteria.

DEQ initially proposed balancing these factors, with slightly more emphasis placed on health and compliance and less on affordability and readiness to proceed. In discussions with EPA and with our state's Drinking Water SRF Advisory Committee, it became clear that health risks and compliance issues needed to be given even more emphasis, and that readiness to proceed could be eliminated and handled through by-pass procedures.

Projects that address acute risks that are an immediate threat to public health, such as inadequately treated surface water, were given high scores. Proposals that would address lower risk public health threats, such as chemical contaminants present at low levels, would be ranked slightly lower. Proposals that are intended to address existing or future regulatory requirements before noncompliance occurs also were given credit, but were ranked lower than projects with significant health risks.

The financial impact of the proposed project on the system users will be considered as one of the ranking criteria. The communities most in need of low interest loans to fund the project will be awarded points under the affordability criterion (see Appendix 2).

In addition to the limitations on financing for individual projects discussed earlier in this plan, DEQ is required annually to use at least 15 % of all funds credited to Drinking Water SRF account to provide loan assistance to systems serving fewer than 10,000 people, to the extent there are a sufficient number of eligible projects to fund.

A summary of the ranking criteria and scoring is listed below. The complete set of scoring criteria is attached to this plan as Appendix 2.

# **Summary of Ranking Criteria for Drinking Water SRF Priority List**

- 1. Documented health risks
  - a. Acute health risks 120 points maximum
  - b. Non-acute health risks 60 points maximum
- 2. Proactive compliance measures 50 points maximum
- Potential health risks
  - a. Microbiological health risks 25 points maximum
  - b. Nitrate or nitrite detects 25 points
  - c. Chemical contaminant health risks 20 points maximum
- 4. Construction of a regional public water supply that would serve two or more existing public water supplies 20 points
- 5. Affordability 20 points maximum

# **Financial Status**

The two tables below summarize the DWSRF expenditures to date and outline financial projections and assumptions for the future. The first table addresses the project loan fund and the other shows the set-aside or non-project activities. This information assumes a federal grant amount of \$7,121,300 for fiscal year 1998 and approximately \$7,463,800 for fiscal year 1999, matched with \$1,424,260 and approximately \$1,492,760, respectively, in state general obligation bond funds.

The 1999 capitalization grant could potentially be reduced by 20%, or \$1,492,760, if Montana does not demonstrate that it has implemented a Capacity Development Program for new water systems. (Please see discussion of the this activity on page 10.) These funds will be permanently lost if the program is not in place by October 1, 1999. DEQ expects to meet the deadline and does not anticipate any reduction in the capitalization grant. However, if this should occur, the project loan fund would decrease by \$1,063,684, and the set-aside activities would be reduced by \$154,800 in PWS Supervision, \$100,000 in Source Water Protection, \$25,000 in Capacity Development, and \$149,276 in Technical Assistance.

# Funds Available To the Drinking Water Revolving Loan Fund

Federal Cap. Grants	14,826,200				
Minus Set-Asides	(2,697,192)	12,129,008			
FFY98 Cap. Grant	7,121,300				
Minus Set-Asides	(767,748)		6,353,552		
FFY99 Cap. Grant*	7,463,800				
Minus Set-Asides	(782,628)		6,681,172	25,163,732	
Loan Repayments		120,000	600,000	720,000	
Interest on					
Investments		250,000	500,000	750,000	
Transfer from Clean Water SRF		4,892,646	4,892,646		
Total Sources	15,464,248	21,944,390	37,408,638		
USE OF FUNDS					
Minus Loans Executed					
Direct Loans	(7,469,000)		(7,469,000)		
Funds Available for Loan				29,939,638	
Projected FFY99 Loans					
Direct Loans			(29,939,638)	(29,939,638)	
Balance Remaining				0	

# MONTANA DWSRF SET-ASIDE ACTIVITY

Cat Asida	07 Cront	98 Grant	99 Grant*	Transformed To	Fynandad	Dolongo	Dlannad
Set-Aside	97 Grant	96 Grant	99 Grant	Transferred To	Expended	Balance	Planned
				DWSRF Loan	Thru 3/99	Available	FFY2000
				Fund			
		T	1		T	T	T
4% Administration	593,048	284,852	298,552	-	(530,552)	645,900	442,496
10% State Program	-	-	-	-	-	-	-
PWS Supervision	120,000	155,470	154,800	-	(50)	430,220	119,950
Source Water Protection	100,000	105,000	100,000	-	-	305,000	100,000
Capacity Development	55,000	25,000	25,000	-	(623)	104,377	54,377
Operator Certification	50,000	55,000	55,000	-	(37,225)	122,775	67,775
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2% Small System Tech.	296,524	142,426	149,276	-	-	588,226	296,524
Asst.	,	,	,			,	,
15% Local Assistance	-	-	-	-	-	-	-
Loan Assistance for SWP	-	-	-	-	-	-	-
Capacity Development	-	-	-	-	-	-	-
Source Water	1,482,620	-	-	-	(39,369)	1,443,251	514,029
Assessment#							
Wellhead Protection	-	-	-	-	-	-	-
Totals	2,697,192	767,748	782,628		(607,819)	3,639,749	1,595,15
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*Contingent on Implementing	ng a New Syste	ems Capacity [	Development F	Program by October	1 1999		
*Contingent on Implementing a New Systems Capacity Development Program by October 1, 1999							

<sup>#</sup> The SDWA only allowed funds for this activity to be set aside one time from the initial FY 1997 capitalization grant. Montana elected to set aside the maximum allowable amount of \$1,486,200 (10%), which can fund these activities over a 4 year period. Please see discussion in Source Water Assessment Program -- Delineation and Assessment.

A more detailed description of set-asides may be found later in this plan. Any unused administrative funds will be banked, i.e., placed in an account and used for administration in future years, after federal capitalization grants are no longer available and the program must rely solely on revolving funds.

Current projections show Montana's allocation will level off in the \$9-\$10 million range annually for four years. At the end of that time, the program is expected to be capitalized and to operate on its own revenue.

One option available to states is to use the federal funds to leverage additional state bond funds. This makes available more money to meet high demands, but it increases the financing costs and thus the loan rate charged to communities and districts. DEQ and DNRC still do not recommend using the program in this manner at this time, and do not currently foresee changing to a leveraged approach. The two departments previously explained the leveraging option to the Advisory Committee and to the people attending the 1997 public hearings, along with their recommendation not to pursue leveraging. The advisory committee concurred, and general agreement with this recommendation was expressed at each hearing.

# Long-term goals

- 1. To build and maintain a permanent, self-sustaining state revolving fund program that will serve as a cost-effective, convenient source of financing for drinking water projects in Montana.
- 2. To provide a financing and technical assistance program to help public water supplies achieve and maintain compliance with federal and state drinking water laws and standards for the protection and enhancement of Montana's public drinking water.

# **Short-term goals**

- 1. To develop and implement a Drinking Water State Revolving Fund Program in Montana.
- 2. To ensure the technical integrity of Drinking Water SRF projects through the review of planning, design plans and specifications, and construction activities.
- 3. To ensure the financial integrity of the Drinking Water SRF program through the review of the financial impacts of the set-asides and disadvantaged subsidies and individual loan applications and the ability for repayment.
- 4. To ensure compliance with all pertinent federal, state, and local safe drinking water rules and regulations; and
- 5. To obtain maximum capitalization of the funds for the state in the shortest time possible while taking advantage of the provisions for disadvantaged communities and supporting the set-aside activities not directly related to the loan portfolio.

# Transfer of funds between the Drinking Water & Clean Water SRFs

At the Governor's discretion, a state may transfer up to 33 percent of the Drinking Water SRF capitalization grant to the Clean Water SRF or an equal amount from the Clean Water SRF to the Drinking Water SRF. Transfers cannot occur until at least one year after receipt of the first capitalization grant, which is June 30, 1999. DEQ intends to transfer the maximum amount allowable under the FY 1997 capitalization grant (\$4,892,646) from the Clean Water SRF to the Drinking Water SRF at that time. It is currently anticipated that these funds will be used to finance four projects. In addition, the maximum amount from the FY 1998 and FY 1999 capitalization grants, \$2,350,029 and \$2,463,054 respectively, will likely be transferred from the Clean Water SRF to the Drinking Water SRF when those funds are available for the construction of additional projects.

No negative impacts are expected to either SRF program in the short or long term. The source of transfer funds shall consist of capitalization grants, state match, loan repayments, and other program funds as determined appropriate by DEQ and DNRC. These transfers are currently necessary due to the excessive demand for financing of drinking water infrastructure improvements throughout the state. Should a similar situation occur in future years with wastewater infrastructure, funds will be transferred from the Drinking Water SRF back to the Clean Water SRF to finance those improvements.

## **Set-Asides**

The Drinking Water State Revolving Fund also is charged with funding certain provisions of the federal Safe Drinking Water Act, through the use of "set-aside" accounts. States are given flexibility to set aside specified amounts of the federal drinking water capitalization grant for specific purposes outlined in federal law; also outlined in state law in MCA 75-6-201, et seq. These set-asides each have different purposes and conditions, and some are mandatory. Montana is continuing to fund the following set-asides, each of which is described in more detail in the following sections:

administration
technical assistance for small communities
capacity development
operator certification
public water supply programs
source water assessment -- program implementation & field data collection
source water assessment -- delineation & assessment (activity ongoing but w/ no add'l setaside funds.)

## **Administration**

The DEQ will set aside four percent of each capitalization grant, or \$583,404 total, for program administration. This will cover development of the program and the intended use plan, review of water system facilities plans, review of construction and bid documents, assistance and oversight during planning, design and construction, loan origination work, administering repayments, preparation of bond issuances, and costs associated with the advisory committee and the public comment process. This set-aside also will fund one additional loan management position at DNRC, up to five engineering positions at DEQ, and one administrative support position at DEQ. These costs and new personnel were approved by the 1997 Montana Legislature.

Any funds that are set-aside for administration but not actually spent will be "banked;" i.e., they will be placed in an account and used for administration in future years, after federal capitalization grants are no longer available and the program must rely solely on revolving funds. Spending such funds is subject to approval of the Montana Legislature, although federal and bond restrictions will limit use of these funds to purposes related to this program. This is the only set-aside that has incurred reimbursable costs to date.

## **Technical Assistance for Small Communities**

This provision allows states to provide technical assistance to public water systems serving populations of 10,000 or less. The Drinking Water SRF program will provide outreach to small public water supply systems through an integrated approach designed to reach: (1) communities whose systems have chronic violations that threaten public health, and (2) communities requesting help to correct operation and maintenance problems or to develop needed water system improvement projects. The set-aside will be funded at the maximum 2% of the capitalization grants for a total allocation of approximately \$291,702.

The technical assistance effort will focus on operation and maintenance. This will be designed to reach a large number of small systems throughout Montana. Services here will include help with ground or surface source water problems, treatment systems, pumping systems, storage systems, and distribution systems. These problems typically can be corrected by technical assistance and on-site training, which also will help identify recurring problems. Public health risks will be reduced through operator training and system assistance providing immediate solutions and protecting public water supplies.

DEQ will contract most of these services to technical assistance providers within the state. Expenditures will cover contractor salaries, travel expenses and costs related to reporting and follow-up activities. Currently, DEQ has requested proposals for an operation and maintenance assistance contract. An award is expected to be made in early 1999. (The set-aside amount from the 1997 capitalization grant, \$297,000, will be used to fund this contract initially. Subsequent contract activities will be funded from the 1998 and 1999 set-aside amounts.) DEQ will evaluate the program, based in part on contractor reports, to identify positive results, recurring problems, and opportunities for improvement. Any changes will be discussed in future intended use plans.

# **Capacity Development**

The 1996 Amendments to the Safe Drinking Water Act allow states to use SRF funds to establish authority to enforce capacity requirements and to implement a capacity development strategy. This will ensure that all new and existing community and non-transient non-community public water supply systems have the necessary technical, financial and managerial capability to comply with all of the primary requirements of the SDWA. EPA also requires that systems demonstrate adequate capability in these areas as a condition of approval for Drinking Water SRF loans.

If a state does not obtain the authority to conduct this enforcement and does not implement these strategies, EPA will withhold 20 % of its Drinking Water SRF capitalization grant, beginning in fiscal year 1999. Additionally, the State also will lose substantial portions of successive capitalization grants if it does not develop and implement strategies to assist existing water systems with capacity development. The portions of the grants that may be lost are 10% in FY 2001, 15% in FY 2002, and 20% of each subsequent year's funds.

The State of Montana already has the necessary legal authority to enforce capacity requirements. The 1991-1992 Legislature provided DEQ the authority to review water systems' viability or capacity [re. 75-6-103(2)(g) MCA]. DEQ previously set-aside \$60,000 from the FY1997 capitalization grant to develop administrative rules and is in the process of finalizing these before October 1, 1999, to avoid the withholding provisions.

A proposed schedule for implementation of administrative rules is outlined below:

February, 1999	Finalize proposed rules and circulars for Board of Environmental Review (BER) meeting on March 19.		
February 9, 1999	Informal workgroup meeting with consultants, realtor and building associations representatives, Montana Rural Water, Midwest Assistance Program, and City-County representatives. Workgroup attendees will be introduced to the proposed capacity rules and be allowed four weeks to review and comment on the proposed rules prior to the BER meeting.		
February 12, 1999	Mail complete draft packages to workgroup members.		
February 25, 1999	Informal workgroup meeting with consultants and City-County representatives in Billings to discuss proposed rule changes.		
March 3, 1999	Informal workgroup meeting with consultants and City-County representatives in Missoula to discuss proposed rule changes.		
March 4, 1999	Meet with the informal workgroup attendees to discuss concerns and changes to the proposed capacity rules. The concerns of the workgroup will be presented at the BER meeting.		
March 19, 1999	BER meeting. DEQ representatives will present the proposed capacity rules to the BER to request authorization to proceed with rule making process. DEQ representatives will address any questions the BER or attendees have.		
March 26, 1999	File proposed rules.		
March 26-April 9	Mail rules to interested parties.		
April 8, 1999	Publish rules.		
April 9-May 7	Public meetings will be held and comments received.		
May 7 - 21	Address public comments and modify rules as necessary.		
June 1, 1999	Have final rule package prepared for legal staff's review.		
July 2, 1999	BER meeting. Present final rule package to BER for approval.		
July 12, 1999	File final rules with Secretary of State.		
July 22, 1999	Publish final rules.		
July 23, 1999	Rules become effective.		
August, 1999	Training sessions for consultants, developers, and sanitarians.		

Once the administrative rules have been implemented, DEQ intends to help public water systems comply with these capacity development requirements through a planning and management assistance contract. This effort will be designed to help systems focus on their technical, financial and managerial needs. The operations and maintenance contract (Technical Assistance set-aside) will serve as the primary technical assistance tool. The system management and planning assistance contract will address other technical issues as well as financial and managerial capability. This may include problems related to water quantity issues, long-term planning, rate and financial issues, sampling and monitoring, public notification, customer confidence reports, system upgrades and/or improvements, record keeping issues, in-depth trouble shooting, and complex treatment issues.

The procurement process for the planning and management assistance contract is anticipated later in 1999, once the regulatory components of capacity development have been finalized. DEQ will subsequently evaluate the program, based in part on contractor reports, to identify positive results, recurring problems, and opportunities for improvement. Any changes will be discussed in future intended use plans.

# **Operator Certification**

DEQ will set-aside \$55,000 for the Public Water Supply Section to address certification of non-transient, noncommunity water systems and to meet additional training requirements imposed by the 1986 and 1996 SDWA amendments. The funding will be used to hire a new administrative support position, and to provide associated equipment and operating expenses. Tasks will include updating the certification database with non-transient system information, and classifying each system with the appropriate certification class. This funding will be matched dollar-for-dollar by state funds, in addition to the overall twenty-percent match required for all elements of the program. Existing operator certification fees will be used for the match.

# **Public Water Supply Program (PWSP)**

This set-aside allows states to enhance existing public water supply program efforts. PWSP, the primary regulatory agency for the Safe Drinking Water Act in Montana, assists public water suppliers in the protection of public health through regulatory and compliance assistance. PWSP will continue and enhance these current efforts to assist public water systems through a set-aside of \$155,470 from the FY 98 grant and approximately \$154,800 from the FY 99 grant. The set-aside will be used for regulatory and compliance assistance provided by contracted services and existing PWSP resources. Resources may also include two additional FTE that are being proposed to the 1999 Legislature. If approved, these positions will be located in the field offices in Kalispell and Billings.

PWSP will use the set-aside funds to provide assistance to help systems understand regulations and how to comply with them. The set-aside also will be used to provide assistance in the areas of engineering design and plan review, operations, maintenance and administration of public water supplies. General regulatory assistance will be provided to help with changing and new regulations.

System-specific compliance assistance will be provided to those systems where known compliance and public health issues exist. Some examples of regulatory and compliance assistance to be provided include:

Identifying contaminants & potential sources of contamination (e.g. inadequate well construction) & recommending possible solutions

Conducting Comprehensive Performance Evaluations

Helping to classify groundwater sources that may be contaminated by untreated surface water

Responding to acute contamination events (e.g. coliform bacteria)

Focused training/technical assistance (e.g. lead and copper)

Responding to system failures (e.g. water outages)

Conducting sanitary surveys using contracted services

Capacity Development Evaluations (technical, financial, and managerial abilities)

PWSP expects to see continued improvements in compliance through sanitary surveys, Comprehensive Performance Evaluations, plan review and focused training. The program also expects to see enhanced protection of public health by increasing our ability to respond to acute contamination events, to respond to system failures and to identify contaminants and potential sources of contamination.

In addition, the PWSP intends to use a portion of this set-aside to fund contracted services activities for Advanced Revelation (AREV) database "clean-up" and enhancement, and development of a new PWS Section database in Access and Oracle. The PWS Section database has been developed using Advance Revelation. The database structure is largely complete. Records in each public water supply file have been reviewed to ensure completeness and accuracy of the information in the database. Work to ensure the accuracy of monitoring profiles for each public water supply source and entry point is nearing completion. Programming in AREV that will help ensure the accuracy of compliance determinations and reporting to SDWIS is nearing completion.

Programming efforts in Access and Oracle are necessary to improve the near-term and long-term utility of the database. Individuals with expertise in AREV are increasingly difficult to find, and support of AREV software will eventually terminate. Individuals with expertise in Access and Oracle should be more available to the PWSS. Conversion will also allow better public access to the database via the Internet, and will allow easier development and maintenance of public water supply GIS database layers.

Finally, the State of Montana and DEQ have selected Oracle as the primary database "engine" software for the present and future. Conversion will also provide much simpler consolidation with other DEQ and state agency software programming and maintenance in a Windows environment.

# Source Water Assessment Program -- Data Collection and Implementation

Section 1452(g)(2)(B) of the SDWA allows Montana to set aside a portion of the capitalization grant to "administer or provide technical assistance through source water assessment programs." Set-aside funds in the amount of \$100,000 from the FY 98 grant and \$105,000 from the FY99 grant will be used for the continued performance of program activities. A portion of the \$100,000 set-aside also will be used to administer or provide technical assistance through the Montana Source Water Protection Program.

The goals of this effort are: a. to update the construction, locational and water quality information regarding public water supply sources in the PWS section database and in MBMG's Groundwater Information Center (GWIC) database; b. to create consistency between the two databases with respect to public water supply sources; c. to build a GIS layer of public water supply wells through NRIS; d. to provide training to DEQ staff in the use of ArcInfo to utilize the GIS data layer in permitting decisions; e. to identify vulnerable groundwater sources that may be under the direct influence of surface water or otherwise subject to contamination, and; f. provide the source water database necessary for the SWP Section to proceed with the EPA-approved statewide SWAP.

A portion of these activities will be performed by contracted services. Two contracts have been initiated, and will improve the ability of the PWS and Source Water Protection (SWP) Sections to implement requirements established under the 1986 and 1996 amendments to the Safe Drinking Water Act.

One contract is with the Natural Resource Information System (NRIS) at the Montana State Library. The contract will create a GIS layer of public water supply sources, improve current latitude/longitude locational information, and provide training for DEQ staff access to GIS using ArcView GIS software.

The second contract is with the Montana Bureau of Mines and Geology. This contract will supplement the NRIS contract, and provide additional information to the PWS and SWP Section regarding source vulnerability. The contract will initiate field work to update source water construction and locational information in the PWS database, and will evaluate suspected vulnerable source waters that may require further treatment or source water protection efforts. NRIS and MBMG will communicate closely throughout the term of the contracts to ensure enhancement of the GIS data layer as more information becomes available.

When completed, these contracts will provide a complete database for use by the Public Water Supply Section in primary enforcement implementation of the SDWA, and for use by the Source Water Protection Section in implementation of the Source Water Protection requirements of the 1996 amendments to the SDWA. Also, reporting of locational information for PWS sources to the USEPA SDWIS system will be greatly enhanced, and the general public will have Internet access to a GIS data layer that will include location, water quality and construction information for PWS sources in Montana. Finally, access to the GIS data layer will greatly enhance the ability of DEQ staff, and other governmental permitting and planning agencies, to consider the effects of their permitting decisions upon Public Water Supply sources.

# Source Water Assessment Program -- Delineation and Assessment

The SDWA specified that funds for this activity to be set aside only one time from the initial FY 1997 capitalization grant. Upon the recommendation of the Drinking Water State Revolving Fund Advisory Committee, Montana elected to set aside the maximum allowable amount of \$1,486,200 (10%), which can fund these activities over a 4 year period.

Section 1453 of the 1996 Amendments to the federal Safe Drinking Water Act (SDWA) requires primacy states to "carry out directly or through delegation, a source water assessment program." A Source Water Assessment Program (SWAP) delineates the boundaries of an assessment area from which public water systems derive their water (surface water or groundwater) and identifies the origins of regulated contaminants to assess the susceptibility of the public water systems to those contaminants. The Montana program was developed according to U.S. EPA guidance and is built around Montana's existing wellhead protection program.

To avoid duplication and to encourage efficiency the source water assessment program uses all reasonably available hydrogeologic information such as data generated by public water system vulnerability assessments, sanitary surveys, routine monitoring, wellhead protection delineations, and delineations or assessments completed as part of a watershed initiative. Emphasis is placed on the use of a geographic information system to ensure the opportunity to use program collected or compiled information within DEQ and other state or federal agencies. Output products of the source water assessment program include maps showing delineated source water protection areas with an inventory of potential contaminants, and susceptibility assessments. The delineation and assessment reports are useful information for future regulatory decisions relating directly to the public water supply program and indirectly to other water quality issues such as water quality standards, watersheds, statewide water quality monitoring, and Total Maximum Daily Loads.

Montana has approximately 1,980 public water systems classified as either community, non-transient, or transient. Water from the 827 community and non-transient systems generates greater exposure to potential contaminants than does water from transient systems. Therefore, DEQ developed a source water assessment program that prioritizes implementation based on public water system classification, size, and apparent risk based on source water characteristics.

DEQ developed and will begin implementing the SWAP using data from local, city, state, and federal governments using agency staff as well as contracting out additional work where necessary. The \$1,486,200 set-aside for implementation funds activities including staff and contractual work necessary to compile and organize existing information, hiring necessary staff to complete program development, and implementation of the program by staff and through contracted work. Program development includes continuing to work with the Montana Source Water Assessment Advisory Council and submittal of the state program to EPA for review by February 5, 1999.

# **Subsidies to Disadvantaged Communities**

Communities seeking a Drinking Water SRF loan that meet the disadvantaged community criterion listed below may receive an additional subsidy on their SRF loans, beyond the standard below-market rate financing. This includes communities that will meet the disadvantaged criterion based on projected rates as a result of the project.

A community is considered economically disadvantaged when its combined monthly water and wastewater system rates are greater than or equal to 2.2% of the community's Median Household Income (MHI). If the community has only a water system, the percentage is 1.4% of the community's MHI. These percentages are consistent with affordability requirements for other state funding agencies in Montana. The water and sewer rates used for this calculation include new and existing debt service and required coverage, new and existing operation and maintenance charges, and normal depreciation and replacement expenses.

To assist these economically disadvantaged communities, the Drinking Water SRF loan program will provide to qualifying communities a waiver of the loan loss reserve fee, which will result in an annual 1.0% interest rate reduction on the project loan. The total amount of reduced interest rate loans that the Drinking Water SRF may make under any single capitalization grant will be limited to 20% of that capitalization grant. This measure is taken to ensure that the corpus of the Drinking Water SRF fund will be maintained and thus that the program will be able to operate in perpetuity, while still providing some additional assistance to economically disadvantaged communities. Qualifying disadvantaged communities also are eligible for extended loan terms of up to 30 years, provided the loan term does not exceed the design life of the project.

Systems that are expected to receive reduced interest rates or extended loan terms in the next year are identified on the "Anticipated Funding List" within the section describing the project list.

# Appendix 2: Ranking Criteria for Drinking Water SRF Priority List

#### 1. Documented health risks

#### a. Acute health risks - 120 points max.

Fecal coliform or other pathogens - two or more boil orders in any twelve-month period. Risk must be documented as a reoccurring and unresolved problem that appears to be beyond the direct control of the water supplier.

Surface Water Treatment Rule (SWTR) treatment technique violation - source must have been developed as an unfiltered supply, an inadequately filtered supply, Ground Water Under the Influence of Surface Water, and/or without adequate contact time prior to the development of EPA SWTR regulations that would have mandated improved treatment.

Chemical contaminants (other than nitrate or nitrite) - risk must be documented as reoccurring and unresolved problem confirmed through quarterly sampling (or as determined by DEQ) that appears to be beyond the direct control of the water supplier. Contaminants must be present at levels exceeding Unreasonable Risk to Health (URTH) levels.

Nitrate or nitrite Maximum Contaminant Level (MCL) violations - MCL violation must be confirmed through routine and check sampling as required by DEQ.

Guidance for ranking: For unfiltered surface water, use 70% of max. points in this category unless there have also been documented problems with turbidity, fecal contamination or disease outbreaks. Award an additional 10% of max points for each of the following: boil order resulting from a turbidity violation, fecal MCL violation, documented disease outbreak. If disease outbreak has been documented, award maximum points.

For filtered surface water systems, a CT violation without boil orders or fecal MCL violations, etc, should receive 50% of maximum points under this category. Award additional points for the additional violations.

Example: An unfiltered surface water system has had turbidity violations resulting in a boil order, as well as a fecal MCL violation. There have been no documented disease outbreaks. The system would get 70% + 10% = 90% of max points in this category.

#### b. Non-acute health risks - 60 points max.

(Non-fecal) coliform bacteria - two or more Total Coliform Rule (TCR) (non-acute) MCL Significant Non-Compliances (SNCs) automatically qualify if the problem is documented as a regularly reoccurring and unresolved problem that is beyond the direct control of the water supplier.

Man-made chemical contaminants - problem must be documented as a reoccurring and unresolved problem that is beyond the direct control of the water supplier. Contaminants must be present at levels that are above the PQL, and less than the URTH level. Contaminants must be detected at least twice during quarterly monitoring in any twelve month period. MCL violations may or may not occur.

Natural chemical contaminants - problem must be documented as a reoccurring and unresolved problem through quarterly sampling (or as otherwise determined by DEQ) that is **beyond the direct control** of the water supplier. Contaminant levels must be confirmed as an MCL violation, but the averaged value of the violation must be less than the URTH level.

Guidance for Ranking: Start with 50% of maximum points in this category for lead and copper or other chemical violations and go up or down in 10% increments depending on the severity of the problem.

#### 2. Proactive compliance measures - 50 points max.

Improvements in infrastructure, management or operations of a public water system that are proactive measures to remain in compliance with current regulatory requirements, to ensure compliance with future requirements, or to prevent future, potential SDWA violations.

Guidance for ranking: If a system is reacting to an existing documented health violation under category 1a or 1b, it should receive no points under this category. Emphasis should be toward a deliberate proactive approach to potential health problems. A system with points awarded in this category typically will currently be in compliance with most or all SDWA regulations.

#### 3. Potential health risks

#### a. Microbiological health risks - 25 points max.

Occasional but reoccurring detects of coliform bacteria resulting in one or less TCR (non-acute) MCL violation in any twelve month period.

Reoccurring and unresolved problems with non-coliform growth that are beyond the direct control of the water supplier, and result in inconclusive coliform bacteria analyses.

Water distribution pressures that routinely fall below 35 psi at ground level in the mains, or 20 psi at ground level in customers' plumbing systems. Problems must be the result of circumstances beyond the direct control of the water supplier.

#### b. Nitrate or nitrite detects - 25 points

Occasional but reoccurring detects of nitrate or nitrite at levels above the MCL that occur once or less in a twelve month period. MCL violations are not confirmed by check sampling.

#### c. Chemical contaminant health risks - 20 points max.

Occasional but reoccurring detects of man-made chemical contaminants that occur once or less in any twelve month period. Levels must be above the PQL, but below the URTH level. MCL violations do not occur because of the presence of the contaminant is not adequately documented through check-sampling.

Occasional but reoccurring detects of natural chemical contaminants (other than nitrate or nitrite) at levels above the MCL that occur once or less in a twelve month period. MCL violations are not confirmed by check sampling.

<u>Guidance for ranking:</u> No additional points should be given in this category for contaminants already addressed in categories 1 or 2. However, if a project scope includes remedies for different types of violations, it should receive points in each of the applicable categories.

4. Construction of a regional public water supply that would serve two or more existing public water supplies - 30 points.

Regionalization would increase the technical, managerial and/or financial capacity of the overall system, would result in some improvement to public health, or bring a public water system into compliance with the SDWA.

5. Affordability (Only one applicable - maximum 20 points)

Expected average household combined water and sewer user rates, including debt retirement and O&M are:

greater than 3.5% of MHI 20 pts between 2.5% and 3.5% (inclusive) of MHI 15 pts between 1.0% and 2.5% (inclusive) of MHI 10 pts 1.0% or less of MHI 5 pts

#### **Drinking Water SRF Priority List Bypass procedures.**

If it is determined by DEQ that a project or projects are not ready to proceed or that the project sponsors have chosen not to use the Drinking Water SRF funds, other projects may be funded in an order different from that indicated on the priority list. If DEQ chooses to bypass higher ranked projects, it should follow the bypass procedure.

The bypass procedure is as follows:

- 1. DEQ shall notify, in writing, all projects which are ranked higher than the proposed project on the Drinking Water SRF priority list, unless it is known that a higher project will not be using Drinking Water SRF funds.
- 2. The notified water systems shall have 15 calendar days to respond in writing with any objections they may have to the funding of the lower ranked project.
- 3. DEQ shall address, within a reasonable time period, any objections received.

#### **Emergency bypass procedures.**

If DEQ determines that immediate attention to an unanticipated failure is required to protect public health, a project may be funded with Drinking Water SRF funds whether or not the project is on the Drinking Water SRF priority list. DEQ will not be required to solicit comments from other projects on the priority list regarding the emergency funding.